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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,133	07/30/2003	Jeremy John Carroll	B-5177 621118-8	1835

7590 01/10/2008
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

NGUYEN, ALLEN H

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/632,133

Applicant(s)

CARROLL, JEREMY JOHN

Examiner

Allen H. Nguyen

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/06/2007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 11/06/2007 has been considered by the examiner.

Response to Arguments

3. Applicant's arguments with respect to claims 1-8, 11-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owa et al. (US 2001/0043357).

Regarding claim 1, Owa '357 discloses a method of assigning a print job in a printing system, the printing system comprising at least one printer and at least one computer connected to said printer(s) (fig. 1), wherein the or each printer has a plurality of different printing configurations (figs. 9a-9b) and the or each computer is capable of generating at least one print Job (printer selection section 11, fig. 2), said print job(s) having corresponding printing requirements (i.e., printer information retention means retains printer information concerning print environments of the printers; see page 1, paragraph [0010]), each printing configuration being capable of satisfying one or more printing requirements (figs. 3-4), the method comprising the steps of:

i) creating one or more print jobs (i.e., user 1 shown in FIG. 5 sets print conditions of "monochrome," "A4," "600 dpi," and "no double-sided print" and issues a print execution command of a 20-page document; see page 4, paragraph [0069]);

ii) notionally assigning the or each print job created in step i) as a notional print job assignment across one or more of the printers in such a way that the one or more of the printers have printing configurations that are capable of satisfying the printing requirements of a corresponding print job (i.e., the printer PRN4 of the four printers PRN1-PRN4 is excluded because it can not satisfy any of the print conditions assigned priority A, "monochrome," "A4," and "600 dpi." Further, the status information shown in FIG. 4 is referenced and printers PRN1 and PRN2 that cannot print 20 pages, the document feature, are excluded because not enough A4-size paper remains. Finally, the printer PRN3 is selected as an optimum printer; see page 4, paragraph [0069]);

iii) calculating a cost for printing the or each print

job according to said notional print job assignment (i.e., in this case, the printer PRN3 is printing as shown in FIG. 4. Thus, the printing for user 1 is delayed until the current printing job is complete. If the remaining A4-size paper amount in the printer PRN2 is 20 sheets or more in the status information shown in FIG. 4, the printer PRN2 rather than the printer PRN3 will be selected as an optimum printer; see page 4, paragraph [0070]);

iv) repeating steps ii) (i.e., when user 2 shown in FIG. 5 issues a print execution command of the same document as user 1 under the same print conditions; see page 4, paragraph [0071]) and iii) at least once for a at least one different notional print job assignment (i.e., a printer comprising the basic information better satisfying the condition items assigned priority B can gain a higher score, but the printer PRN2 will gain the highest score and the printer PRN1 will gain the second highest score with respect to the print location and the printer PRN3 will gain the highest score and the printer PRN1 will gain the second highest score with respect to the print speed; see page 4, paragraph [0071]);

v) selecting from the notional print job assignments according to the calculated costs a preferred assignment of the or each print job (With respect to the status information shown in FIG. 4, the printer PRN2 with the remaining paper amounting to less than the print condition is excluded and the score of the current printer PRN3 which is currently printing is reduced; thus, the printer PRN1 will be selected; see page 4, paragraph [0071]).

It is noted that Owa does not use the term cost, it is obvious to a person with ordinary skill in the art that the score is equivalent to the cost, because the score is a

value giving assuring a print job is print by a particular printer by comparing the print job requirement to the print configuration. In short, the score giving to the printer obvious is a cost of printing the print job by the printer.

Regarding claim 2, Owa '357 discloses a method, in which the or each printer has a pre-existing printing configuration, and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing configuration(s) to changed configuration(s) so that the printer(s) can satisfy the printing requirements (If the printer PRN3 is not printing, the faster printer PRN3 may be selected over the printer PRN1. In summary, the printer most satisfying the conditions desired by user 2, i.e., a printer installed at a close location and operating at high speed, is selected automatically. Thus, the user can handle a number of printers advantageously and efficiently; see page 4, paragraph [0071]).

Regarding claim 3, Owa '357 discloses a method, in which said needed changes include manual reconfiguration of at least one printer (i.e., the user can also manually enter the contents of the items in the basic information setting section 12 or the basic information setting section 12 can send an inquiry about information known by the printer itself; see page 2, paragraph [0040], fig. 2), said calculated cost then including an assessment of the cost of such a manual reconfiguration (i.e., if the document has a large number of pages, a higher added score can be given to a printer which operates

at a high print speed so that a high-speed printer is preferentially selected; see page 4, paragraph [0065]).

Regarding claim 4, Owa '357 discloses a method, in which the preferred assignment of the printing job requires a manual reconfiguration of at least one printer (i.e., if none of the printers can satisfy the criteria assigned priority A, the host computer 1 warns the user; see page 3, paragraph [0058]), in which the printing system after selection of said preferred assignment then presents to a user of the printing system instructions for manually reconfiguring said printer(s) (i.e., the priority B means that preferably the corresponding condition item is satisfied; see page 3, paragraph [0058], fig. 5).

Regarding claim 5, Owa '357 discloses a method, in which the print job is assigned to more than one printer (i.e., if it is determined at step S8 that one or more printers are to be selected; see page 3, paragraph [0063], fig. 6), and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers (i.e., FIG. 5 is an illustration of an example of the printer selection conditions set in the printer selection condition setting section 15. In the figure, the condition items of color/monochrome, paper size, print resolution, double-sided print, print location, print speed, and remaining consumable amount and user-specified priority for each of the

condition items (A, B, or C) are set as the printer selection conditions; see page 3, paragraph [0058]).

Regarding claim 6, Owa '357 discloses a method, in which the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements (i.e., the scores given to each printer are totaled and retained. The sequence is repeated until all condition items assigned priority B have been handled at step S15 (YES); see page 4, paragraph [0064], fig. 6).

Regarding claim 7, Owa '357 discloses a method, in which the calculated cost is an economic cost (i.e., if one or more printers to be selected remain, control goes to step S19 wherein the printer having the highest final score is selected as an optimum printer from among the printers determined to be selected; see page 4, paragraph [0067], fig. 6).

Regarding claim 8, Owa '357 discloses a printing system (fig. 1), the printing system comprising at plurality of printers and at least one computer (Host Computer 1, fig. 1) connected to said printers (Printer 5, 2a-2d, fig. 1), each printer of said plurality of printers having a plurality of different printing configurations (figs. 9a-9b) and the at least one computer being capable of generating at least one print job (printer selection section 11, fig. 2), said at least one print job having corresponding printing requirements

(i.e., printer information retention means retains printer information concerning print environments of the printers; see page 1, paragraph [0010]), the at least one printing configuration being capable of satisfying one or more printing requirements (figs. 3-4), wherein the printing system is arranged to calculate a cost for printing the at least one print job (i.e., user 1 shown in FIG. 5 sets print conditions of "monochrome," "A4," "600 dpi," and "no double-sided print" and issues a print execution command of a 20-page document; see page 4, paragraph [0069]) according to different notional assignments of the at least one print job across one or more of the printers in such a way that said printers have printing configurations that are capable of satisfying the printing requirements (i.e., the printer PRN4 of the four printers PRN1-PRN4 is excluded because it can not satisfy any of the print conditions assigned priority A, "monochrome," "A4," and "600 dpi." Further, the status information shown in FIG. 4 is referenced and printers PRN1 and PRN2 that cannot print 20 pages, the document feature, are excluded because not enough A4-size paper remains. Finally, the printer PRN3 is selected as an optimum printer; see page 4, paragraph [0069]), and to select according to the calculated costs a preferred assignment of the or each print job (i.e., in this case, the printer PRN3 is printing as shown in FIG. 4. Thus, the printing for user 1 is delayed until the current printing job is complete. If the remaining A4-size paper amount in the printer PRN2 is 20 sheets or more in the status information shown in FIG. 4, the printer PRN2 rather than the printer PRN3 will be selected as an optimum printer; see page 4, paragraph [0070]); and wherein the at each printer has a pre-existing printing configuration and said calculation of the cost includes an assessment of the cost of any

needed changes from the pre-existing printing configurations to changed printing configurations so that the printers can satisfy the printing requirements (If the printer PRN3 is not printing, the faster printer PRN3 may be selected over the printer PRN1. In summary, the printer most satisfying the conditions desired by user 2, i.e., a printer installed at a close location and operating at high speed, is selected automatically. Thus, the user can handle a number of printers advantageously and efficiently; see page 4, paragraph [0071]).

It is noted that Owa does not use the term cost, it is obvious to a person with ordinary skill in the art that the score is equivalent to the cost, because the score is a value giving assuring a print job is print by a particular printer by comparing the print job requirement to the print configuration. In short, the score giving to the printer obvious is a cost of printing the print job by the printer.

Regarding claims 11-17, it is noted that claims 11-17 corresponding to the claims 1-7 respectively as discussed above, please see the Examiner's comments with respect to claims 1-7 as set forth above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Boswell (US 5,559,933) discloses distributed enterprise print controller.

Matsubara (US 6,188,487) discloses print control system and print control method.

Barry et al. (US 6,707,563) discloses multiple print engine with error handling capability.

Hower, Jr. et al. (US 5,467,434) discloses apparatus and method for determining printer option availability and representing conflict resolution in a combination of print job selections.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

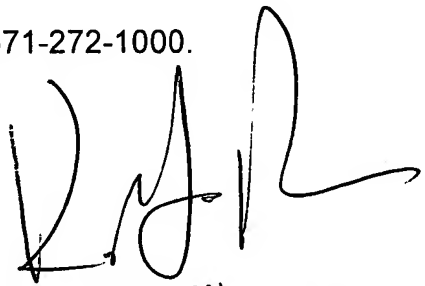
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen H. Nguyen whose telephone number is 571-270-1229. The examiner can normally be reached on M-F from 9:00 AM-6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571)-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KING Y. POON
SUPERVISORY PATENT EXAMINER

AN

01/04/2008